STATE OF NEW HAMPSHIRE
Before the
PUBLIC UTILITIES COMMISSION

Verizon New Hampshire Investigation into Cost of Capital	)	**DT 02-110**

Rebuttal Testimony
of
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on behalf of

Freedom Ring Communications, L.L.C. d/b/a BayRing Communications and Conversent Communications of New Hampshire, LLC

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TABLE OF CONTENTS

I. PURPOSE

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose this Rebuttal Testimony is to respond to the Direct Testimony filed by Dr. Vander Weide on behalf of Verizon in this proceeding.

II. SUMMARY OF FINDINGS AND RECOMMENDATIONS

Q. PLEASE SUMMARIZE THE FINDINGS AND RECOMMENDATIONS IN THIS CASE.

A. In my direct testimony, I showed that the overall cost of capital that should be allowed to Verizon New Hampshire is 6.73%. This determination was based upon a capital structure containing 31.74% common equity, a cost of equity of 10.00%, a cost of 6.43% for long-term debt and 2.0% for short-term debt. My cost of capital recommendation is substantially different from that of company witness Dr. Vander Weide. He recommended an overall cost of capital of 17.93%.[1] This extraordinarily high result is based upon a capital structure containing 75% common equity, a cost of equity of 14.13%, and a cost of debt of 7.40%, results that produced a weighted

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[1] Dr. Vander Weide's Direct Testimony, at 8:18.

average cost of capital of 12.45%. [2] He then added an additional risk premium of 5.48% to this 12.45% to account for the ability of UNE customers to leave the system.[3]

Dr. Vander Weide and I have each filed cost of capital testimony in the same proceedings on numerous other occasions over the past several decades. Just as in the past, we have made vastly different cost of capital recommendations based upon very different capital structures and costs of equity. Also, just as in the past, we strongly disagree on how to compute the DCF method and how to quantify the actual debt to equity risk premium expected.

I have testified on the cost of capital in hundreds of different rate proceedings in dozens of states and recently testified in Nova Scotia, Canada. Based upon this experience, it is my observation that Dr. Vander Weide typically overstates the cost of equity more than most other cost of capital witnesses who testify for companies. In this case, Dr. Vander Weide's recommendation is far more extreme and far more exaggerated than I have ever seen before. His errors have compounded into a result that is literally an astronomical return. His cost of debt is far too high because he ignored low-cost short-term debt even though Verizon Communications has raised approximately 18% of its capital via the use of very inexpensive short-term debt. His

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2 Dr. Vander Weide's Direct Testimony, at 53:14-22.

already substantially inflated 14.13% "cost" of equity is pumped up further by the addition of a completely improper extra risk premium and by the use of a capital structure that is completely different from the way Verizon actually raises its capital. If the Commission were to award Verizon New Hampshire the 17.93% return on capital proposed by Dr. Vander Weide, this would be equivalent to allowing the company to earn a 46.9% return on the equity of its real capital structure. Return on equity means the return that Verizon Communications would earn every year on its stockholders' investment in Verizon. The "real" capital structure refers to the actual capital structure provided to Verizon by its outside investors. By any standard, a 46.9% return on equity is well beyond the level that firms operating in a competitive environment could reasonably expect to maintain, and is a gigantic return even for a company with an unregulated monopoly. It is the result of the "excessive valuation or fictitious capitalization" noted by the US Supreme Court.[4] Given the "almost insurmountable competitive advantage"[5] found to be enjoyed by Verizon by the US Supreme Court, anything resembling such an astronomical return would severely harm if not totally preclude other

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3 Dr. Vander Weide's Direct Testimony, at 8:9-18.

4 *Verizon v. FCC*, 122 S.Ct. 1646, 1662 (May 13, 2002).

5 *Id.*

carriers from providing any competition to Verizon New Hampshire in the provision of local service.

Q. PLEASE SUMMARIZE THE PROBLEMS WITH DR. VANDER WEIDE'S RECOMMENDED CAPITAL STRUCTURE.

A. Dr. Vander Weide has ignored the capital structure actually chosen by management to finance the telecommunications assets of Verizon. Instead, he has substituted a capital structure in which he uses the market value of the equity capital. He also has failed to acknowledge the existence of short-term debt in the financing equation. Verizon management realizes that short-term debt is a very effective low cost way of providing the company with a substantial amount of financing.

The use of a market value capital structure is wrong because it fails to recognize that capital structure is something that is under the control of management. The forward-looking capital structure required by the TELRIC standards should reflect the capital ratios that competent management would use if they were purchasing new telecommunications equipment today. Additionally, as will be explained later in this testimony, use of a market-based capital structure is specifically in violation of the U.S. Supreme Court's findings in the landmark Hope Natural Gas case.

Q. PLEASE SUMMARIZE THE PROBLEMS WITH DR. VANDER WEIDE'S COST OF EQUITY AND IMPLEMENTATION OF THE DCF METHOD.

A. The principal problems with Dr. Vander Weide's DCF methodology are reflected in the following five errors in his determination of the cost of equity:

A) **Dr. Vander Weide improperly relies on Analysts' 5-year growth rates**. Dr. Vander Weide continues to testify to a DCF method that mechanically relies on analysts' five-year growth rates as the long-term sustainable growth rate in a constant-growth form of the DCF model. It is mathematically wrong to use a five-year analysts' growth rate in the constant-growth form of the DCF model that Dr. Vander Weide has presented; moreover, analysts' growth rates, even if used in a mathematically valid way, contain the extra deficiency of having been shown in study after study to be habitually optimistic. Knowledgeable investors have, for years, treated analysts' forecasts with serious skepticism. However, the shocking downfall of huge companies such as Enron and WorldCom that were previously the darlings of many analysts has brought the entire securities analysis business into the spotlight.

B) Dr. Vander Weide incorrectly adjusts a dividend yield term upwards for quarterly-compounding. Dr. Vander Weide's approach to escalating the dividend yield for the impact of quarterly compounding is wrong because it provides only part of the story. If it is correct to adjust the dividend yield upwards to account for quarterly compounding, then it is just as correct to adjust the return on equity DOWN to adjust for the daily compounding that occurs because a company earns its return on equity every day as revenues are collected and a DOWNWARD adjustment to the growth rate because if a company pays dividends quarterly it has less use of the earnings to create growth. The downward adjustments to the return on equity (adjustments Dr. Vander Weide fails to consider) more than offset the upward adjustment to the dividend yield.

C) Dr. Vander Weide considers the wrong companies. Dr. Vander Weide applied his version of the DCF method to the S&P 500. This is a group of companies with a higher risk profile than Verizon New Hampshire's regulated retail operations, and considerably more risk than the UNE operations of Verizon New Hampshire. Also, because this group of companies obtain a relatively high proportion of their total return as growth rather than as dividend yield, the error

caused by Dr. Vander Weide's improper use of analysts five-year forecasts as a proxy for long-term growth is even more exaggerated for this group of companies than for a group of companies more similar to Verizon New Hampshire.

D) Dr. Vander Weide improperly includes a financing cost allowance. Dr. Vander Weide continues to add a 9 basis point adjustment to his cost of equity for financing costs even though Verizon has not issued new common equity for many years, does not plan to in the future, and if Verizon were to issue equity its current market-to-book ratio is high enough that the premium received from the sale of stock would be more than enough to fully pay for financing costs. Furthermore, even if an adjustment were to be made based upon historic common stock offerings and at a more modest market-to-book ratio than prevails today, the Federal Energy Regulatory Commission determined that the increment to cost was about 0.02%, or 2 basis points, which is a negligible amount.

Q. PLEASE SUMMARIZE THE PROBLEMS WITH DR. VANDER WEIDE'S RECOMMENDED COST OF DEBT.

A. Dr. Vander Weide has failed to consider that Verizon Communications, Inc. is obtaining a substantial amount of short-term debt to finance its assets. Short-term debt currently has a cost rate of

less than 2% and it comprises over 18% of Verizon Communications capital structure. Yet, Dr. Vander Weide has included absolutely none of the benefits of this low-cost source of capital in his cost of capital computation. Additionally, Dr. Vander Weide has used a 7.40% cost of long-term debt. Since he prepared his testimony, capital cost rates have come down substantially. Now, 6.43% is the cost of debt to Verizon. New Hampshire and Verizon Communications, Inc.

Q. PLEASE SUMMARIZE WHY DR. VANDER WEIDE PROPOSED RISK PREMIUM TO HIS OVERALL COST OF CAPITAL IS INAPPROPRIATE.

A. Dr. Vander Weide proposes the addition of a risk premium to his overall cost of capital because he believes that Verizon New Hampshire's UNE business is comparable to the equipment leasing business. Risk in the leasing business can be high or low depending upon the type of equipment being leased. Whether or not equipment can be re-deployed either at the end of the lease or in the event a lease is terminated early can make a large difference in the relative risk of a lease. Dr. Vander Weide's risk analysis is completely invalidated because of his failure to consider this important causation factor in the leasing business. In this instance, those leasing the UNE equipment want to continue to lease the equipment. In fact, Conversent has advised me that it would prefer a long-term lease for unbundled

interoffice transport including unbundled dark fiber transport to one that is only month-to-month so that it can keep using Verizon facilities and rely on Verizon to provide the facilities on a long-term basis. Additionally, if a CLEC purchaser of Verizon's UNEs were to lose a customer, the most likely scenario is that the facilities will be kept in use by the customer's new service provider, whether that provider is Verizon or another CLEC. This is in contrast to office equipment, where the lessor who returns the office equipment would in all probability replace the leased equipment with different equipment obtained elsewhere and the returned equipment would not be revenue producing.

III. REGULATORY DECISION IN A PRIOR UNE CASE INVOLVING TESTIMONIES OF VANDER WEIDE AND ROTHSCHILD.

Q. HOW HAVE REGULATORY AGENCIES RESOLVED THE DIFFERENCES BETWEEN YOU AND DR. VANDER WEIDE?

A. The last time Dr. Vander Weide and I both filed cost of capital testimony in a Verizon proceeding was in Verizon New Jersey's UNE proceeding in 2001. Dr. Vander Weide was the cost of capital witness for Verizon New Jersey, and I was the witness for the New Jersey Ratepayer Advocate. In that proceeding, I recommended a cost of equity of 10.0%, and a capital structure containing 31.74% common equity. The cost of capital section from the New Jersey Board's

decision is included with this testimony as JAR Rebuttal Exhibit 1. Summarizing, pages 37-40 of the Board's decision discusses the cost of capital. The decision notes that the Ratepayer Advocate recommended a cost of capital of 8.8% for UNEs, and Verizon's requested a cost of capital for UNEs of 12.6%. The decision notes that Verizon's high cost of capital request was based upon Verizon's claim for higher risks. In response to Verizon's risk argument, the New Jersey Board stated:

> The fact remains that Verizon NJ maintains complete control over its network and any market share losses to CLECs have come in the form of UNEs or resale, for which it is duly compensated. Verizon NJ remains the primary supplier of local telephone service as both the retail and wholesale provider of service, and we anticipate that this will continue into the foreseeable future.[6]
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> ...
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> The Board agrees with the parties that have pointed out Verizon NJ's approach contains companies that offer goods an services that are far afield from the provisioning of UNEs. We disagree with Verizon NJ that its analysis is relevant to the provision of UNEs.[7]
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> In view of the foregoing, the Board ADOPTS the Advocate's proposal as the appropriate forward-looking cost of capital. The Advocate's analysis was the most reasonable one contained on the record. As an initial matter, the Advocate relied upon Verizon NJ's parent

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6 IN THE MATTER OF THE BOARD'S REVIEW OF UNBUNDLED NETWORK ELEMENTS RATES, TERMS AND CONDITIONS OF BELL ATLANTIC-NEW JERSEY-INC., Docket No. To00060356, Decision and Order, at 38 (N.J. B.P.U. Mar. 6, 2002).

7 *Id.* at 38.

> company in determining its capital structure. While the parent company's capital structure differs from Verizon NJ's, the Advocate argued that the Board should consider the fact that "(i)t is unreasonable to assume that 'the regulated operations in New Jersey are more risky than the other businesses owned by [Verizon]'" (Ab at 44). For the purposes of our review of whole sale unbundled network elements, this is reasonable. In addition, we FIND that the Advocate's debt and equity analyses are superior to those proposed by the other parties.[8]

Q. WHAT WAS THE RESULT OF THE CASE IMMEDIATELY PRIOR TO THE VERIZON NEW JERSEY CASE THAT BOTH YOU AND DR. VANDER WEIDE PRESENTED COST OF CAPITAL TESTIMONY?

A. The case in which Dr. Vander Weide and I both presented cost of capital testimony immediately before the Verizon New Jersey proceedings was a Public Service Electric and Gas proceeding, also in New Jersey. In that case, Administrative Law Judge McAfoos stated the following in his decision:

> I am convinced from a review of the record that the assumptions made by Dr. Vander Weide in his study are inaccurate: he employed methodologies that ensure that his DCF study is skewed in such a way as to result in an exceedingly high return on equity calculation. These include adjusting for quarterly dividend impacts, what I consider to be an excessive level of financing costs, and the use of a five-year growth rate rather than a long-term sustainable growth rate in his DCF analysis. [9]

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[8] *Id.* at 39.

[9] IN THE MATTER OF THE RULING OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY PERTAINING TO ITS STRANDED COSTS AND ITS UNBUNDLED

These same weaknesses found in Dr. Vander Weide's proposal, namely quarterly dividend impacts, an excessive level of financing costs and the use of five-year analysts growth rates rather than a long-term sustainable growth rate are issues that all reappear in this case. In fact, the only issue that is new in this case than is Dr. Vander Weide's new strategy to add a risk premium based upon his concept of viewing UNEs as a short-term lease. Notably, as Dr. Vander Weide's admits, he is "unaware of any jurisdiction that has fully adopted his proposed cost of capital in a UNE TELRIC cost proceeding." See BR/Conv. 1-3.

IV. DR. VANDER WEIDE'S PROPOSED CAPITAL STRUCTURE HAS NO BASIS IN REALITY.

Q. PLEASE EXPLAIN THE DIFFERENCES BETWEEN HOW YOU DETERMINED CAPITAL STRUCTURE AND DR. VANDER WEIDE DETERMINED CAPITAL STRUCTURE IN THIS CASE.

A. I determined capital structure by recognizing that if a competitor were to attempt to replicate the used and useful telecommunications assets utilized by Verizon to provide UNE service, the competitor would strive to raise the capital in a manner that would produce the lowest overall cost of capital in the long-run. Minimizing log run overall cost of capital is the only way to comply with the FCC's TELRIC

RATES, OAL DKT Nos. PUC 7347-97 and PUC 7348-97, Initial Decision and Report, at 54 (N.J. B.P.U. August 1998).

requirements. Since equity costs more than debt, and since the return on equity is subject to income taxation while the return on debt is not (interest expense is tax deductible), good management strives to use as little common equity as is practical. A reasonable amount of common equity must be used because absent the protection of equity, bond investors would be unwilling to invest. Bonds would simply be too risky. If equity is just barely sufficient to attract bond investors, then the cost of debt becomes too high. As a result, because of high financial risk, the cost of equity also becomes too high. Therefore, good management uses enough common equity to keep the cost of debt and cost of equity at reasonable levels but does not use so much equity that it burdens itself with any more common equity than necessary.

Another consideration in capital structure is how much short-term debt to use and how much long-term debt to use. Generally, short-term debt costs less than long-term debt. However, short-term debt rates are more subject to fluctuations in interest rates than long-term debt.

There are two basic choices that can realistically be used to determine the proper capital structure to use for determining the overall cost of capital. One is to use the capital structure actually implemented by management and the other is to challenge management by showing that the capital structure they selected is sub-optimal. In this case, I reviewed the actual capital structure selected by the management of Verizon Communications and concluded it was a reasonable proxy to use for an optimal capital structure. Therefore, whenever possible, I propose the use of the actual capital structure

selected by management to finance its current and future operations. The actual capital structure is the capital structure of the consolidated entity, as the capital structure of a subsidiary is often set with alternative goals in mind. It is especially important to look to the consolidated capital structure for telecommunications companies because Standard & Poor's has specifically stated that when evaluating the debt quality of a telecommunications company, "Standard & Poor's no longer allows the corporate credit rating (CCR) of a regulated telephone operating company to be higher than the CCR of its parent."[10]

In contrast to Dr. Vander Weide, I reviewed the actual capital structure selected by the management of Verizon Communications and concluded it was a reasonable proxy to use for an optimal capital structure. It is especially important to look to the consolidated capital structure for telecommunications companies because Standard & Poor's has specifically stated that when evaluating the debt quality of a telecommunications company, "Standard & Poor's no longer allows the corporate credit rating (CCR) of a regulated telephone operating company to be higher than the CCR of its parent."[11].

The "market value" capital structure proposed by Dr. Vander Weide is not forward-looking. If a competitor were to attempt to replicate the used and useful telecommunications assets utilized by Verizon to provide UNE service, a competitor with competent

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10 "Corporate Rating Criteria", Standard & Poor's, 2001, at 46.

11 "Corporate Rating Criteria", Standard & Poor's, 2001, at 46.

management would strive to raise the capital in a manner that would produce the lowest overall cost of capital in the long-run. Since equity costs more than debt, and since the return on equity is subject to income taxation while the return on debt is not (interest expense is tax deductible), good management strives to use as little common equity as is practical. A reasonable amount of common equity must be used because absent the protection of equity, bond investors would be unwilling to invest. Bonds would simply be too risky. If equity is just barely sufficient to attract bond investors, then the cost of debt becomes too high. As a result, because of the high financial risk, the cost of equity also becomes too high. Therefore, good management uses enough common equity to keep the cost of debt and cost of equity at reasonable levels but does not use so much equity that it burdens itself with any more common equity than necessary.

If the "market value" capital structure suggested by Verizon New Hampshire were used for UNE rates, but the book value capital structure were used for the regulated portion of Verizon New Hampshire's operations, consistency would require that when determining the overall cost of capital for Verizon New Hampshire, it would be necessary to make a downward adjustment to the book reported capital structure to recognize that a higher allocation of equity capital had been made to the UNE operations. When the book value equity is less than the market value equity, economic value is created when the book value equity is switched to a the market value capital structure. Therefore, any responsible economic analysis of a market based capital structure would have to consider this value increment

Another substantial problem with the capital structure proposed by Dr. Vander Weide is that he has completely ignored short-term debt. Short-term debt is a very low cost of capital that is currently used extensively by Verizon.

Q. WHAT IS WRONG WITH DR. VANDER WEIDE'S USE OF "MARKET" CAPITALIZATION RATHER THAN BOOK CAPITALIZATION?

A. Using a market based capitalization is improper because it loses sight of how capital structure is determined in the first place. Indeed, a market based capitalization does not address the optimal cost of capital decisions either through direct computation or indirectly thorough decisions made by management. It also does not address the analyses made by rating agencies such as Standard & Poor's.

During the technical session, Dr. Vander Weide tried to ignore the relevance of Standard & Poor's by stating that Standard & Poor's bond rating is not a rating on the risk of the common stock. While the Standard & Poor's bond rating is indeed NOT a rating on the risk of the common stock, the proper capital structure selection is about the relative risk of not only common stock, but bonds as well. As I stated earlier, unless the risk of investment is sufficiently low, bond investors will either demand very high interest rates or will possibly refuse to invest at all.

Q. IN YOUR DIRECT TESTIMONY, YOU STATED THAT USING A MARKET-BASED CAPITALIZATION IS IN DIRECT CONTRADICTION TO THE US SUPREME COURT'S FINDING IN THE HOPE NATURAL GAS CASE. PLEASE EXPLAIN

A. Stock prices are substantially impacted by future expectations of earnings. If one is using a market based capital structure, the higher the stock price, the higher the percentage of common equity in the capital structure. The higher the percentage of common equity in the capital structure, the higher the revenue requirement. In other words, using a market based capital structure to establish the revenue requirements of a company would result in an upward spiral where higher stock prices would produce a need for higher income requirements, and the higher income requirements would produce a need for higher revenue requirements. Such an outcome is, on the face of it, unreasonable. The *Hope* decision wisely states:

> "fair value" is the end product of the process of rate-making not the starting point as the Circuit Court of Appeals held. The heart of the matter is that rates cannot be made to depend upon "fair value" when the value of the going enterprise depends on earnings under whatever rates may be anticipated.[12]

Using a market-based capitalization would effectively use the higher earnings to establish the stock price, which is identical in this context to "fair value". This "fair value" is then improperly used by Dr. Vander Weide to attempt to justify higher earnings, a circle that is specifically what the *Hope* decision says cannot be done.

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12 *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 601 (1943).

V. DR. VANDER WEIDE'S RECOMMENDED COST OF EQUITY IS PREMISED ON FLAWED CONCLUSIONS.

Q. PLEASE EXPLAIN YOUR CONCERN WITH DR. VANDER WEIDE'S COST OF EQUITY AND IMPLEMENTATION OF THE DCF METHOD.

A. There are many problems with Dr. Vander Weide's implementation of the DCF method. Two of the largest problems with Dr. Vander Weide's DCF method are: 1) he used a constant-growth version of the DCF model, but used a proxy for long-term growth based solely on earnings per share growth forecast for the five years from 2001 to 2006, and 2) he arbitrarily eliminates companies from his DCF analysis if the DCF indicated cost of equity was outside of a range he felt reasonable.[13] Through such an elimination process, he negates the results of his DCF analysis and instead distills the result to one that is merely dependent upon the cut-off range of his choosing.

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[13] Dr. Vander Weide explains in Exhibit JVW-1 that "those companies with cost of equity results equal to or below the April 2002 average yield on Moody's A-rated industrial bonds or equal to or above 20 percent."

Q. PLEASE EXPLAIN WHY THE DCF CUT-OFF RANGE CHOSEN BY DR. VANDER WEIDE CAN HAVE SUCH A LARGE IMPACT ON HIS DCF RESULT.

A. By eliminating any DCF result that is either below the A rated bond interest rate or is above 20%, he assures that his DCF result will always be close to mid-way between the A rated bond rate and 20% irrespective of whether or not there is any validity to his DCF computations. Furthermore, even if his DCF computations did have some meaning, the truncation destroys the meaning. While it might be true that DCF results below an A rated bond interest rate are somewhat questionable (at least until or if the tax law on dividends is changed), by eliminating such low results he provides for an upward skewing to his answer. His decision to eliminate companies with a DCF result above 20% does not provide an equal balance to his skewing because the 20% cut-off point is not symmetrical to the lower-end cut-off point. Since the true cost of equity is about 10%, Dr. Vander Weide's filter on his DCF results is upwardly biased because his upside filter is much further away from the true cost of equity than is his downside filter.

The earnings per share consensus growth rate is an unreasonable proxy for long-term sustainable growth. Even if analysts' reports did not contain the upward bias that they are known to have, the five-year growth rate is NOT the long-term sustainable

growth rate required for use in the constant-growth form of the DCF model. Data contained in the *Business Week* Article "The Painful Truth About Profits"[14] shows that from 1960 through 2000, after-tax corporate profits averaged about 6.5% of corporate stock of plant and equipment. The graph in this article also shows that in 2001, this profit percentage had declined to about 5.25%. If analysts expect that corporate profits will return to the long-term average of 6.5% by 2006, then earnings growth over the five years from 2001 through 2006 will have to be higher on a temporary basis than sustainable in order for earnings to return to the long-term average of 6.5%.

Q. HOW MUCH HIGHER THAN NORMAL WOULD EARNINGS GROWTH HAVE TO BE FROM 2001 TO 2006 IN ORDER FOR EARNINGS AS A PERCENTAGE OF CORPORATE STOCK OF PLANT AND EQUIPMENT TO RETURN TO NORMAL?

A. In order for profits to grow from 5.25% of plant and equipment to 6.5% of plant and equipment, earnings would have to grow by 23.8% assuming there was no increase in plant and equipment (6.5%/5.25%-1=23.8%). If plant and equipment were to also grow, then the one-time growth in earnings required to enable the return on plant and equipment to return to the long-term average would be even higher. A

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[14] Business Week, November 4, 2002, at 107-112.

one-time growth in earnings of 23.8% spread out over five years is a compound rate of earnings per share growth of 4.36% per year. In other words, just the non-recurring growth required for earnings to return to the historic average level would be 4.36%. The constant growth form of the DCF model requires that non-recurring growth such as this 4.36% be excluded from the "g" term used in the DCF model.

Q. HOW DOES THE CHRONIC OPTIMISM OF ANALYSTS IMPACT THE RESULTS OF DR. VANDER WEIDE'S APPROACH TO THE DCF METHOD?

A. Since events over the past year or two have made it clearer than ever that analysts are generally optimistic, rather than realistic, their earnings growth rate forecasts for 2001 to 2006 could be large enough so that the earnings rate on plant and equipment would have to exceed the long-term average of about 6.5%. This over-estimation of the growth rate would further exaggerate the sustainable growth rate over a relatively short time period such as five years. For example, if hypothetically analysts' forecasts were overly optimistic to the point where their earnings forecasts would result in a return on plant and equipment of 7.5% instead of 6.5%, then the non-recurring growth rate portion of total growth from 2001 to 2006 would become 7.39% (7.5%/5.25%-1=7.39%) instead of 4.36%. Therefore, by making the

double mistake of failing to recognize the upward bias in analysts' forecasts and then using a five-year earnings per share growth rate forecast in a DCF formula that requires a long-term sustainable growth rate, the error embedded in the analysts' forecasts is greatly exaggerated. This greatly exaggerated growth rate results in a similarly exaggerated cost of equity computation from the DCF model.

Q. SHOULD ANY OF THE NON-RECURRING GROWTH IN EARNINGS PER SHARE BE INCLUDED IN THE "G" TERM OF THE CONSTANT GROWTH FORM OF THE DCF MODEL?

A. No. The "g" term in the constant growth form of the DCF model refers to cash flow growth anticipated by investors. Stock investors receive cash flow from dividends until the stock is sold, and receive the proceeds from the stock sale once the stock is sold. The boards of directors of most companies seek a stable dividend policy, meaning that dividends do not dip when earnings dip abnormally and do not increase as rapidly as earnings when earnings return to more typical levels. Stock prices are largely based upon future anticipated earnings. Therefore, current stock prices are already related to the future sustainable level of earnings.

Q. IN RESPONSE TO BR/CONV. 1-26 (b), DR. VANDER WEIDE PROVIDED A COPY OF A STUDY THAT HE CLAIMS JUSTIFIES THE USE OF ANALYSTS' FORECASTS IN THE DCF MODEL. PLEASE COMMENT ON THE STUDY.

A. Dr. Vander Weide provided a study that he conducted back in the 1980's, as its publication date is Spring 1988. What Dr. Vander Weide failed to disclose is that this referenced study does NOT address the accuracy of analysts' growth rates for use in a DCF model, and it does NOT compare the use of an analysts' five-year growth rate with the use of more sophisticated models such as the a comparison of the sustainable growth rate obtained by using the future expected value of "r" in a "b x r" (or retention rate times future expected return on book equity) computation. Notably, his 1988 study concludes that "our studies affirm the superiority of analysts' forecasts over simple historical growth extrapolations in the stock price forming process."

Based upon prior rebuttal testimonies that Dr. Vander Weide has filed, I know from experience that he has testified that his study rebuts the use of the "b x r" growth rate method. What he has failed to disclose is that it rebuts the use of a "b x r" method in which the value of "r" is only based upon the mechanical use of an historic earned return. I do not recommend here and have never recommended a cost of equity using a DCF method that merely accepts the historic earned return on equity as the number to use in a

DCF model. The distinction is very important. In fact, a study similar to the one prepared by Dr. Vander Weide specifically noted that when future estimate for "r" is used, as I have done, then the conclusion changes. One commonly quoted study was done by Gordon, Gordon and Gould.[15] In this study, the authors concluded that a "b x r" approach based upon future expected values for "r" would likely have been "as good or better" than all of the other growth rate measures they tested.

Q. PLEASE EXPLAIN WHY THE STUDY PRESENTED BY DR. VANDER WEIDE IN RESPONSE TO PART (b) OF BR/CONV. 1-26 DOES NOT SHOW THE VALIDITY OF USING FIVE-YEAR ANALYSTS FORECASTS IN A DCF MODEL.

A. Because helping explain a stock price is different from properly quantifying a future expected growth rate, the study presented by Dr. Vander Weide correctly avoided reaching the conclusion about the accuracy of using analysts forecasts in a DCF model. His study shows that over the time period he examined (1971-1983), analysts' growth rates better explained stock prices than did historic growth rates. The use of historic growth rates is indeed a flawed means of projecting future growth of a particular stock because investors purchase stock

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[15] Choice Among Methods of Estimating Share Yield, the Journal of Portfolio

based upon future expectations. Also, historic growth rates can be highly influenced by how typical or atypical the starting or ending years' results were. Over relatively short time periods such as five or ten years, the end-point error can be so large as to make the historic growth rate indicators not much better than random numbers. Random numbers do not help explain stock prices. Analysts' forecasts have many flaws, generally have an upward bias, but they are less likely to be random than are historic growth rate numbers.

To show why there is a big difference between finding an indicator that somewhat correlates to stock prices and one that might be accurate for use in the DCF method, assume that analysts' five-year growth rate forecasts were always exactly 5% per year too high. In this assumption, they would therefore be predicting a 7% growth rate for companies in which future growth was expected to be 2% per year, and would be predicting a 12% growth rate for companies in which future growth was expected to be 7% per year. Notably, numbers that are predictably too high are useful in explaining stock prices because a company with a 7% growth rate should be expected to have a higher stock price than one with an expected 2% growth rate (other things being equal). Regardless of the fact that the 7% growth rate is expressed as a "12" and a 2% growth rate is expressed as a "7". Under this hypothetical, the same consistently overstated numbers that

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Management, David A. Gordon, Myron J. Gordon and Lawrence I. Gould, Spring 1989.

could explain stock prices would be completely inappropriate for use in a DCF model. At this time, we know from numerous other studies that have been done over the years that analysts' estimates are habitually high and we know from the very serious events that have occurred over the last few years that investors are more aware than ever before that analysts' forecasts are overly optimistic. Knowing this, the only reasonable conclusion to reach is that using analysts' five year earnings per share growth rates in the DCF formula will overstate the growth rate and therefore overstate the cost of equity even if these analysts forecasts MIGHT still be able to help predict stock prices.

Q. ARE THERE ANY STUDIES THAT SPECIFICALLY SHOW THE INACCURACY OF ANALYSTS FORECASTS?

A. Yes, there are many. An excellent survey of a number of such studies is presented in the book "CONTRARIAN INVESTMENT STRATEGIES: THE NEXT GENERATION" by David Dreman.[16] Chapter 5 from this book, starting on page 88, provides substantial analytical evidence showing the inaccuracy of analysts forecasts. The book references studies that appeared in numerous places, including

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16 Published by Simon & Schuster © 1998.

Forbes and a report made by I/B/E/S to its investors. Page 98 of the chapter contains the following:

> How optimistic are analysts' estimates? Jennifer Francis and Donna Phil brick studied analysts estimates from the Value Line Investment Survey, some 918 stocks for the 1987-1989 period. Value Line is well known on the Street for having near-consensus forecasts. The research found that analysts were optimistic in their forecasts by 9% annually, on average. Again, remembering the devastating effect of even a small miss on the high-octane stocks, these are very large odds to be stacked against the investor looking for ultra-precise earnings estimates.
>
> The over optimism of analysts is brought out even more clearly by I/B/E/S, the largest earnings forecasting service, which monitors quarter l consensus forecasts on more than 7,000 domestic companies. In a report to its subscribers, I/B/E/S stated that the average revision for stocks in the S&P 500, which make up approximately 75% of the market value of stocks traded on the New York Stock Exchange, is 12.9%. from the beginning to the end of the year in which the forecast is made. Analysts revise their estimates 6.3% in the first half and 19.5% in the second half of the year. Despite these estimate changes, according to I/B/E/S, analysts tend to be optimistic. What seems apparent is that analysts do not sufficiently revise their optimistically biased forecasts in the first half, and then almost triple the size of the revisions, usually downward, in the second half of the year. Even so, their forecasts of earnings are still too high.
>
> In a recent study, Eric Lufkin and I provided further evidence of analysts' over optimism. Between 1982 and 1997, analysts overestimated the growth of earnings of companies in the S&P 500 by a startling 188%. The actual growth was 7.8% annually, while the original projected growth at the beginning of each year was 21.9%.

The above findings combined with the overwhelming amount of negative publicity received by analysts over the last year or two, combine to show that using analysts' consensus forecasts will

overstate the growth rate that is anticipated by the consensus of investors.

Q. YOU SAID THAT DR. VANDER WEIDE IMPROPERLY USED A QUARTERLY DISCOUNTING ADJUSTMENT IN HIS DCF MODEL. WHY IS THE QUARTERLY VERSION OF THE DCF MODEL INCORRECT?

A. The quarterly model is incorrect because it is incomplete. While it is correct that companies typically pay dividends quarterly, at the same time the quarterly payment of dividends gives the investor the use of the dividend sooner, it removes the cash from the company that much sooner. When the company disburses cash to pay its stockholders, that action suppresses its growth. Therefore, any upward adjustment to account for investors' receipt of a dividend quarterly is offset by the lower growth that a company can obtain because it has use of the money for that much shorter of a time period. Additionally, if one wishes to consider the quarterly compounding effect of dividends, then it is equally appropriate to consider the daily compounding of the return on equity that a company receives. The earnings are compounded daily because a company receives revenues every day. If the daily compounding is considered, then the return on equity that needs to be authorized so a company can actually earn 10% per year is less than 10%. In fact, if a daily compounding is considered, then a

company needs to only be allowed to earn 9.532% per year. This is because 9.532% per year divided by 365 is 0.026% per day. 0.026% per day compounded daily is 10%.

Q. DID DR. VANDER WEIDE CHOOSE AN APPROPRIATE SAMPLE OF COMPANIES IN WHICH TO APPLY HIS DCF METHOD?

A. No. Dr. Vander Weide applied his version of the DCF method to the S&P 500. This group of companies is invalid because it is a group with a higher risk profile than the UNE operations of Verizon New Hampshire. Furthermore, this group is especially vulnerable to having its cost of equity overstated when applying Dr. Vander Weide's flawed version of the DCF method. This is because this group of companies has a relatively high proportion of total return from growth rather than as dividend yield. This concentration on growth overemphasizes Dr. Vander Weide's exaggerated growth rate methodology.

Q. DR. VANDER WEIDE HAS ADDED APPROXIMATELY 0.09% TO HIS COST OF EQUITY FOR FINANCING COSTS. YOUR TESTIMONY HAS NOT MADE ANY ADDITION FOR FINANCING COSTS. PLEASE EXPLAIN.

A. It is correct that I do not specifically discuss financing costs. I did not do so in part because even in times when utility companies are doing financing, these costs tend to be very small. The FERC, in its generic rulemaking proceedings[17], found that financing costs were only about 2 basis points. Adjusting for such a small amount is eliminated in rounding error.

Second, even in the current depressed telecom environment, Verizon has market-to-book ratios considerably in excess of 1.0. As shown on Schedule JAR 3, P. 1 of my direct testimony, the current market-to-book ratio of Verizon is in excess of 2. With a market-to-book ratio this high, external financing actually is profitable rather than costly. There are sufficient excess profits provided to offset financing costs IF there should be an external financing on the part of Verizon.

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[17] For example, see the "Flotation Costs" section of the FERC decision in Docket RM87-35-000 in the Generic Determination of Rate of Return on Common Equity for Public Utilities, January 29, 1988.

VI. DR. VANDER WEIDE'S PROPOSED COST OF DEBT IS OVERSTATED.

Q. PLEASE EXPLAIN DR. VANDER WEIDE'S RECOMMENDED USE OF SHORT-TERM DEBT IN COMPUTING THE OVERALL COST OF CAPITAL.

A. Dr. Vander Weide has ignored short-term debt altogether. Even though the management of Verizon Communications, Inc. has decided to obtain almost $17 billion of its total financing through short-term debt, Dr. Vander Weide has pretended that no short-term would be used by management building a new telecommunications system today. This omission is critical both because of the magnitude of his omission combined with the very low cost associated with short-term debt. No doubt, the management of Verizon Communications has been tempted to utilize such a high level of short-term debt because if its very low cost. Currently, the cost of short-term debt is less than 2%.

Q. PLEASE COMMENT ON DR. VANDER WEIDE'S COST OF LONG-TERM DEBT.

A. He based his cost of long-term debt on the cost rate for A rated debt. Since he has prepared his testimony, capital cost rates have come down substantially. Now, 6.43% is the cost of debt to Verizon. New

Hampshire and Verizon Communications, Inc. Additionally, his cost of short-term debt is a mismatch to his recommended capital structure. If a telecommunications company were to finance its assets with 75% equity, its cost of debt would be lower than the cost for an A rated company.

VII. DR. VANDER WEIDE IMPROPERLY PLACES A RISK PREMIUM ON HIS PROPOSED COST OF CAPITAL.

Q. DR. VANDER WEIDE ARGUES THAT A RISK PREMIUM SHOULD BE ADDED TO THE OVERALL COST OF CAPITAL TO ALLOW FOR HIS PERCEPTION OF THE EXTRA RISK CAUSED BY THE LACK OF A LONG-TERM CONTRACT BETWEEN VERIZON AND UNE CUSTOMERS. PLEASE RESPOND.

A. Dr. Vander Weide's computations do not reflect reality because they do not consider the actual risk exposure. He focuses on the "high risk" caused by the possibility, however remote, that the UNE customers COULD cease buying UNE services from Verizon. Key facts omitted from his analysis include a) the UNE carrier's retail customers would almost certainly continue to need service from the same Verizon equipment if the customer either switched wholesale providers or switched to Verizon; b) no track record of UNE customers leaving the system was provided; c) Verizon did not make

an incremental investment in the equipment in the first place, so there is essentially no UNE investment to lose; d) in the remote likelihood that the UNE equipment should become available for Verizon's use, the growth of its own system could use the equipment; e) if additional spare capacity became available, the cost of spare capacity is borne by ratepayers, not investors. This is fair because ratepayers are now receiving the benefit of a reduced average cost as a result of economies of scale.

Leasing is not automatically "risky." Automobile leases, for example, are available on new cars that have interest rates typically in the 5% to 8% range. Leasing automobiles entails risk, as the leasing company could have to sell the car at the end of the lease for a price that might be lower than originally expected. While a leasing customer is contractually committed to remaining a lease customer for three years, this difference is only semantics. Since the demand for UNE services is growing, even if one UNE customer were to leave the system, the facilities it is using would likely be absorbed by a new customer. Furthermore, no investment was made to service the UNE customer anyhow. So, even if the customer were to leave and the equipment could not be re-deployed, the lost revenue is purely incremental. The combination of the incremental nature of the revenues and the net positive revenue growth from UNE services combine to make the UNE leasing business less risky than the

automobile leasing business.

It is significant to note that I am not aware of any regulatory commission that has ever added a lease risk premium when computing the return on a UNE investment. UNE facilities, while leased to CLECs, are in fact used by retail customers. These customers may be retail customers of the CLECs rather than Verizon. However, from the perspective of the risk of continued use of the UNE equipment, the equipment is in fact being used by retail customers whether through the CLEC or directly through Verizon. Verizon's retail customers use equipment without a long-term lease just as is the case with the UNE equipment used by the retail customers of the CLECs. To treat them differently would be discriminatory.

Q. HOW DID DR. VANDER WEIDE IMPLEMENT HIS LEASING RISK PREMIUM?

A. Dr. Vander Weide implemented his leasing risk premium by adding a 5.48% leasing risk premium to his overall cost of capital to arrive at his cost of capital recommendation for UNEs (on a before tax basis) of 17.93%. He added this premium not to just the cost of equity, but to the overall cost of capital. By adding the leasing risk premium to the cost of capital rather than the cost of equity, the effect on bloating the return on equity is even greater than an already very high and totally unnecessary 5.48%. The actual interest rate paid to the debt holders

remains unchanged even though Dr. Vander Weide's method adds a premium to the debt return as well as to the equity return. The result is that if Dr. Vander Weide's recommendation were adopted, Verizon would earn a considerably higher return on its equity than even Dr. Vander Weide's already; inflated 14.13%.

Any leasing premium, let alone one that is added to the cost of capital rather than the cost of debt, is completely inappropriate in this case because:

a) Verizon New Hampshire has not put any funds at all at risk to service UNEs;

b) the lease should not be treated as though it were a cancelable lease, because in the unlikely event that the UNE customers should leave, their retail customers would continue to require the very same facilities because they would still have to obtain telecommunications service either through another wholesale provider or directly through Verizon New Hampshire;

c) the facilities could be re-deployed to serve future growth;

d) over-capacity is built into the system and included in the cost determination of regulated retail rates;

e) the short-term cancellation feature of the provision of UNE service is at the insistence of Verizon New Hampshire;

f) the ability of a customer to leave the system without notice is already a feature of normal retail customers. Whatever risk is associated with the potential for customers to leave the system is already included in the cost of capital;

g) the proper mechanism for Verizon New Hampshire to receive a return of its investment is through the proper selection of depreciation rates where the risk of technical obsolescence can be viewed directly rather than through an abstract "risk adjustment" to the cost of equity; and

h) the only risk that should be included in the cost of capital is non-diversifiable risk. Risk of customers potentially leaving the system or risk of technological change are diversifiable risks, or risks that do not influence the cost of capital.

VIII. SUMMARY OF ARTICLES ON PROBLEMS WITH SECURITIES ANALYSTS.

Q. HOW HAS DR. VANDER WEIDE USED ANALYSTS FORECASTS IN THIS CASE?

A. As in his prior testimonies, Dr. Vander Weide mechanically uses analysts' five-year earnings per share forecasts as if they are *the proxy for investors' long-term growth expectations*.

Q. IS THIS CONTINUED USE JUSTIFIED?

A. While using analysts' five-year forecasts as *the proxy for long-term growth expectations in a DCF model* has never been appropriate, relying on analysts' growth rates as an indicator for investors expectations is more incorrect today than ever. Nevertheless, Dr. Vander Weide's blind use of analysts' forecasts continues unabated in spite of all of the evidence to the contrary. Just how out of step Dr. Vander Weide is regarding his dogmatic treatment of analysts is dramatically shown by contrasting his response to an interrogatory,

with what Arthur Levitt, the former head of the Securities and Exchange Commission, said in his recently published book.

In response to BR/Conv. 1-26 part (a), Dr. Vander Weide specifically defended analysts by stating:

> Analysts have the ability to recognize and adjust for any manipulation of earnings by management when the analysts make their forecasts.

Page 14 of Arthur Levitt[18]'s book entitled *TAKE ON THE STREET. What Wall Street and Corporate America Doesn't Want You to Know* published in 2002 by Pantheon Books states the following on pages 13-14:

> Enron used accounting tricks to remove debt from the books, hide troublesome assets, and pump up earnings. Instead of revealing the true nature of the risks it had taken on, Enron's financial statements were absurdly opaque. Auditors went along with the fiction, blessing the off-the-books entities that brought the company down. **Most analysts also played along, recommending Enron's stock even thought they couldn't decipher the numbers**. Analysts were foils for their firms' investment banking divisions, which had been seduced by the huge fees Enron was paying them to sell its debt and equity offerings.

[Bold emphasis added]

Contrary to what Dr. Vander Weide says, analysts did not warn investors of the problems with either Enron or WorldCom. As a

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[18] Arthur Levitt was chairman of the US Securities & Exchange Commission starting in 1993, and was the longest-serving SEC chairman. The book jacket also notes Mr. Levitt "was also chairman of the New York City Economic Development Corporation and the American

consequence of analysts' failure to provide the warning, hundreds of thousands of investors lost many billions of dollars.

A later section of this rebuttal testimony contains a summary of some key articles that appeared in business journals throughout the last year. These articles definitively show that investors are currently aware of the serious biases contained in the recommendations of many analysts' reports. As an industry, the securities analysis business is severely tainted. Any cost of equity computation that is made today must recognize this or run the risk of arriving at a conclusion that is completely out of step with investors.

Dr. Vander Weide admits that he continues to use the same analysts' forecasts he used years ago in spite of the severe negative publicity that analysts have received in light of the bursting of the stock market "bubble". Investors point blame at not only WorldCom and Enron analysts, but numerous other analysts as well. Even if analysts were to miraculously clean up their act over night, in a best case scenario, it will take many years for analysts to achieve credibility.

The inapplicability of analysts' growth rates in the DCF formula is further illustrated by the necessity for Dr. Vander Weide to eliminate a substantial number of companies from his comparative

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Stock Exchange." He was also president of Shearson Hayden Stone until 1978. When he left Shearson, Hayden, Stone, "the firm was one of the nation's largest brokerages" at 5.

group simply because the DCF result he obtained was **within** a range he felt reasonable. [19] His elimination of companies outside of his pre-determined range virtually assures him that the result he will get from his DCF analysis is near the mid-point of the remaining range irrespective of what the cost of equity is. In other words, Dr. Vander Weide's choice of the range outside of which he excludes results can have an even larger and larger impact on his DCF result than his choice to use inflated analysts' forecasts in a mathematically invalid way.

Q. EARLIER IN YOUR TESTIMONY, YOU SAID THAT ARTICLES IN BUSINESS LITERATURE DEFINITIVELY SHOW THAT INVESTORS' ARE AWARE OF THE SERIOUS BIASES CONTAINED IN THE RECOMMENDATIONS OF MANY ANALYSTS' REPORTS. AS AN INDUSTRY, THE SECURITIES ANALYSIS BUSINESS IS SEVERELY TAINTED. PLEASE SUMMARIZE THOSE ARTICLES.

A. There have been countless articles that appeared in both in business publications and the popular press throughout the last year. Business Week, a widely read important business publication contained

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[19] Dr. Vander Weide explains in Exhibit JVW-1 that "those companies with cost of equity results equal to or below the April 2002 average yield on Moody's A-rated industrial bonds or equal to or above 20 percent."

numerous articles that reported on the problems with securities analysts. These include:

1. A cover story entitled "How Corrupt is Wall Street" appeared in the May 13, 2002 issue of *Business Week*.

a) The article mentions that Merrill Lynch, Solomon Smith Barney, Morgan Stanley Dean Witter along with 10 other firms are being investigated by the US Securities and Exchange Commission for unethical practices.[20]

b) According to the article, New York State Attorney General Eliot Spitzer made public e-mail exchanges at Merrill where, e-mail messages uncovered by Mr. Spitzer showed that "...analysts disparage stocks as 'crap' and 'junk' that they were pushing at the time. The e-mails are so incendiary that they threaten to thrust Wall Street into the sort of public-relations nightmare that Philip Morris, Ford, Firestone, and Arthur Andersen have endured in recent years"[21].

c) The article features the following quote from David Komansky, the CEO of Merrill Lynch, by placing it in bold letters and large print:

> We have failed to live up to the high standards that are our tradition, and I want to take this opportunity to publicly

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20 Business Week, May 13, 2002, at 37.

21 Business Week, May 13, 2002, at 39

> apologize to our clients, our shareholders, and our employees[22].

In the above quote, Mr. Komansky was responding to what *Business Week* describes as "...the analysts' debacle..."[23]

2. The cover of the July 29, 2002 issue of Business Week features the article entitled "THE ANGRY MARKET."

The Cover summarizes the article by saying "THE BLUNT MESSAGE: Investors are repricing stocks to reflect a more honest picture of earnings, options, and the future." In a discussion about the inaccurate and misleading earnings reporting done by many companies, Business Week says:

> Brokerage-house analysts aren't much help either. They tend to do what companies want. For example, only six of the 21 analysts that have given First Call their estimates for AOL Time Warner Inc.'s 2003 earnings actually provided GAAP figures.

3. **A cover article in the August 5, 2002 issue of *Business Week* is entitled " INSIDE THE TELECOM GAME How Salomon's Jack Grubman wheeled and dealed with WorldCom, Qwest, Global Crossing, and others."**

The article discusses the buy recommendations consistently made by Mr. Grubman on these companies, and says on page 34:

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22 Business Week, "How Corrupt is Wall Street", May 13, 2002, at 42

23 *Id.* at 42.

Now, investors are questioning whether Grubman was motivated by his true opinions – or by the millions of dollars he received from supporting his telecom clique.

4. "HOW TO FIX CORPORATE GOVERNANCE" is the cover article in the in the May 6, 2002 issue of Business Week.

Page 76 of this article says:

> If investors have learned anything from this crisis, it's that Wall Street's analysts are often loath to put a bad spin on a stock. Historically, "sell" ratings have constituted fewer than 1% of analysts' recommendations, according to Thompson Financial/First Call...It is more a case of an inherently conflicted system, that is now the focus of a Justice Department investigation.
>
> ...
>
> Investors need to realize that the free research they're getting is often just a marketing tool, says Kent Womack, a professor at Dartmouth College's Amos Tuck school of business.

5. A June 10, 2002 issue of *Fortune* had an article entitled "In Search of the Last Honest Analyst".

The *Fortune* article noted:

> In fact, stock research sank so low during the bubble that it actually became a contrary indicator of a stock's performance. Researchers at the University of California and Stanford reviewed almost 40,000 stock recommendations from 213 brokerages during the year 2000. The most highly rated stocks had a –31% return for the year, according to the study. Meanwhile, the stocks least favorably recommended (that is,

the sells) soared an annualized 49% -- a differential of 80 percentage points[24]

6. A September 24th, 2002 *Wall Street Journal* article entitled "Will Grubman Case Tone Down the Exaggeration by Analysts?"

The article states the following:

During the 1980s and 1990s, analysts often served as quasi-advocates for companies that hired their firms for investment-banking work, accompanying them on road shows to sell their stock, setting up one-on-one meetings between management and institutional investors, and proffering their access to management to give an unofficial version of the companies' view of business developments[25].

7. On October 22, 2002, the a Wall Street Journal article entitled "Massachusetts Claims CSFB Stock Reports Led Investors Astray" appeared on pages C-1 and C-10.

Following are some highlights from this article:

The complaint [by the Secretary of the Commonwealth of Massachusetts] alleges CSFB misled investors by allowing its investment-banking division – in particular, star Frank Quattrone – to exert undue influence on the firm's research department.

...

The complaint which echoes one filed earlier this year by Elliott Spitzer against Merrill Lynch & Co. will no doubt add to investor concern that Wall Street peddled research it

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24 Fortune.com, "In Search of the Last Honest Analyst", June 2002, at 1 of 2.

25 Wall Street Journal, "Will Grubman Case Tone Down The Exaggeration by Analysts?", September 24, 2002, at C-1 & C-3.

didn't believe only to get its hands on the much more lucrative investment-banking fees.

...

The presumption that every firm engaged in this behavior is fair," says Roy Smith, a professor of finance at New York University and a former partner at Goldman Sachs Group, Inc. It reminds me of how we used to talk in the locker room after a football game. That talk happens all the time, but it would sure be embarrassing if anyone ever recorded it.[26]

IX. CONCLUSION

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

A. Dr. Vander Weide has created a highly imaginative, albeit extreme, three-step process to determine the cost of capital in this case. His cost of capital recommendation so high that if it were adopted, Verizon would earn 46.9% on its equity investment made in UNEs. His three steps to an extreme cost of capital consists of:

1. Overstating the cost of equity that results form the DCF method. Dr. Vander Weide has overstated the cost of equity by applying the constant growth version of the DCF model based upon the use of a non-constant growth rate that especially exaggerates the sustainable growth rate because it accepts, without adjustment, analysts' inflated growth rates. The mathematical mistakes and the use of overly-optimistic analysts' forecasts were combined in a way

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[26] Wall Street Journal, October 22, 2002, at C-1 & C-10.

that permitted him to recommend a cost of equity of 14.13% from his DCF method.

2. Leasing Risk Premium. As if the 14.13% DCF result was not already sufficiently out of step with reality, Dr. Vander Weide then took this extremely excessive 14.13% result and further increased it by adding a leasing risk premium of 5.48%. He added this premium not to just the cost of equity, but to the overall cost of capital. By adding the leasing risk premium to the cost of capital rather than the cost of equity, the effect on bloating the return on equity is even greater than an already very high and totally unnecessary 5.48%. The actual interest rate paid to the debt-holders remains unchanged even though Dr. Vander Weide's method adds a premium to the debt return as well as to the equity return.

3. Capital Structure Manipulation. Verizon Communications, Inc. has chosen to finance its telecommunications operations with a capital structure that contains 31.74% common equity. Equity costs more than debt, especially if the cost of debt is related to the astronomical cost of equity recommended by Dr. Vander Weide. If it were possible to overstate the actual percentage of common equity when computing the overall cost of capital, then the actual return earned would be all that much higher. Dr. Vander Weide found a way. Instead of recognizing that a forward-looking capital

structure should be the capital structure that good management would implement for the purpose of minimizing its overall cost of capital, and that the capital structure that shows how management raises capital is the book value capital structure, Dr. Vander Weide recommended a capital structure that contained 75% common equity, and 25% long-term debt. He totally ignored short-term debt even though Verizon Communications Inc. has currently obtained 18.80% of its capital from short-term debt. Verizon Communications management is smart to be utilizing short-term debt because its cost of short-term debt is currently about 2.0%. By ignoring this very real and very inexpensive source of capital to Verizon, Dr. Vander Weide has further exaggerated the cost of capital.

The above mistakes made by Dr. Vander Weide compound. If he had not started out with such a high result from his DCF method, the impact of the other two mistakes would not have been as dramatic. If he had not added the unrealistic leasing premium, his capital structure error would not have had as great an impact. When these mistakes are all put together, if Dr. Vander Weide's recommendation were to be adopted, Verizon Communications Inc. would be provided with the opportunity to earn 46.9% on its UNE investment. A return of 46.9% is way beyond the level that could ever result in a truly competitive marketplace. It is a return that could only even be asked for by a company with facilities in which the barriers to competition

are, in the words of the US Supreme Court "almost insurmountable."[27]

In order to avoid making a travesty of the regulatory process, Dr. Vander Weide's testimony must be given no weight.

Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?

A. Yes.

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27 *Verizon v. FCC*, 122 S.Ct. 1646, 1662 (May 13, 2002)

JAR Rebuttal Exhibit 1

Excerpt from New Jersey BPU's 2002 UNE Cost Decision and Order that Relates to Its Cost of Capital Determination.

AGENDA DATE: 11/20/01
AGENDA ITEM: 4A

STATE OF NEW JERSEY

Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

TELECOMMUNICATIONS

IN THE MATTER OF THE BOARD'S REVIEW OF UNBUNDLED NETWORK ELEMENTS RATES, TERMS AND CONDITIONS OF BELL ATLANTIC-NEW JERSEY, INC.	)))))	DECISION AND ORDER DOCKET NO. TO00060356

(SERVICE LIST ATTACHED)

BY THE BOARD:

PREFACE

This Decision and Order memorializes the decisions made by the Board of Public Utilities ("Board") at its public agenda meeting of November 20, 2001, regarding the recurring and non-recurring rates for unbundled network elements ("UNEs") and the terms and conditions under which certain advanced services, such as digital subscriber line ("DSL") service, should be made available by Verizon New Jersey Inc.[1] ("Verizon NJ," "VNJ" or "the Company") to competitive local exchange carriers ("CLECs"). The Decision and Order also includes the Board's findings and determinations with regard to the rates, terms and conditions under which new UNEs, such as dark fiber and house and riser cable, shall be made available.

On November 20, 2001, the Board announced its decision in this matter and authorized the release of a Secretary's letter dated November 20, 2001, directing Verizon NJ to rerun its costs models, which are used to derive recurring and non-recurring UNE rates, with specific Board-

[1] Verizon NJ was formerly known as Bell Atlantic-New Jersey, Inc. ("BA-NJ"). Following the merger of Bell Atlantic Corporation, its parent, with GTE Corporation in June 2000, BA-NJ changed its name to Verizon New Jersey.

is not subject to manipulation." (Id. at 43). In addition, the Advocate asserted that "[u]nlike Verizon NJ's proposed market capital structure, the consolidated capital structure is an actual capital structure where full arms-length transactions between the public debt and equity investors is reflected." (Ibid.). The Advocate also argued that "both the FCC and the Washington, D.C. Public Service Commission support the use of a consolidated capital structure in determining a company's debt to equity ratio." (Id. at 44).

AT&T Position

AT&T witness Hirshleifer "determined a weighted average of the debt and equity costs by determining the average book capital structure (debt-equity) ratio of the companies in the group, and by determining the average market-weighted capital structure," which resulted in a weighted capital structure of 65.5% equity and 34.5% debt. (AT&Tb at 77; Exh. ATT 46, Attachment JH-3C). AT&T argued that "[b]ecause the capital structure of enterprises devoted to the wholesale supply of unbundled network elements is not directly observable, Mr. Hirshleifer appropriately used the midpoint of the book-weighted capital structure and market-weighted capital structure of large local telephone holding companies as a surrogate for the market-weighted capital structure of a firm devoted solely to the wholesale supply of UNEs." In opposition to Dr. Vander Weide's capital structure recommendation, AT&T asserted that his use of the S&P 400 industrials is inappropriate "[b]ecause these companies are riskier on average, [and therefore] their capital structures contain on average more equity than would be efficient for a wholesale supplier of UNEs." (Id. at 103).

Board Discussion-Cost of Capital

As noted above, the parties to this proceeding have proposed a cost of capital that is in the 8.8%-12.6% range. (Ab at 35; AT&Tb at 78:). Specifically, the cost of capital recommendations were 8.8% for the Advocate, 9.54% for AT&T and 12.6% for Verizon NJ. To establish the cost of capital, we must determine the appropriate forward-looking cost of equity, cost of debt and capital structure.

One of the key determinants in arriving at an appropriate cost of equity is approximating the level of business risks associated with provisioning UNEs. The difficulty with such an undertaking, despite its apparent elementary nature, is that there are no publicly traded

companies exclusively providing UNEs. As a result, we must either utilize one of the approximation approaches proposed by the parties or develop our own. While Verizon NJ continues to argue that it faces ever-increasing market risks, those risks have not been borne out. The fact remains that Verizon NJ maintains complete control over its network and any market share losses to CLECs have come in the form of UNEs or resale, for which it is duly compensated. Verizon NJ remains as the primary supplier of local telephone service as both the retail and wholesale provider of service, and we anticipate that this will continue into the foreseeable future. In addition, Verizon NJ fails to account for the prospect of its eventual entry into the long distance market, which will certainly lessen and tend to offset any perceived risk it faces today.

The Board agrees with the parties that have pointed out that Verizon NJ's approach contains companies that offer goods and services that are far afield from the provisioning of UNEs. We disagree with Verizon NJ that its analysis is relevant to the provision of UNEs. Verizon NJ's approach is fundamentally flawed because it disregards its own data that is available to the Company. Many of Verizon NJ's inputs and assumptions in its models use its existing data as a starting point of its analysis and then attempts are made to make forward-looking adjustments. This would have been the appropriate methodology to utilize with regard to cost of capital, especially in light of the fact that Verizon NJ has been providing UNEs since shortly after enactment of the Telecommunications Act of 1996. In addition, other local telephone companies all across the country have also been proving UNEs. Economists acknowledge that financial markets are efficient in that they tend to reflect market changes today in anticipation of future events. That being the case, we believe that a properly constructed forward-looking cost of capital calculation should utilize existing data or that of other like-companies as a starting point.

Both AT&T and the Advocate attempted such an approach. AT&T recommends a 9.54% and the Advocate 8.8%. However, both approaches were criticized by Verizon NJ as not being forward-looking because they relied on inappropriate comparison groups or utilized embedded or historic data. In addition, Verizon NJ argued that the Advocate used incorrect data in its calculation. However, in the testimony of its witness, the Advocate explained that the selected book value declined due to a reduction in Verizon's stock price from $53 to $43(RPAETH.16 Rothchild at 31).

In view of the foregoing, the Board **ADOPTS** the Advocate's proposal as the appropriate forward-looking cost of capital. The Advocate's analysis was the most reasonable one contained in the record. As an initial matter, the Advocate relied upon Verizon NJ's parent company in determining its capital structure. While the parent company's capital structure differs from Verizon NJ's, the Advocate argued that the Board should consider the fact that "[i]t is unreasonable to assume that 'the regulated operations in New Jersey are more risky than the other businesses owned by [Verizon].'" (Ab at 44). For the purposes of our review of whole sale unbundled network elements, this is reasonable. In addition, we **FIND** that the Advocate's debt and equity analyses are superior to those proposed by the other parties. In calculating equity, the Advocate used both a Discounted Cash Flow method and risk premium/Capital Asset Pricing Model method. According to the Advocate, "[t]he DCF is popular because it examines the factors that provide an investor with a reason to initially purchase a stock [by analyzing] the current dividend yield and an estimate of growth." (Ab at 40.) Then in order to reduce any upward bias, the Advocate averaged the DCF method with the risk premium/CAPM method. (Ibid.). The Advocate explained that the risk premium/CAPM method uses interest rates or inflation to determine what rate of return is necessary to attract an investor to a specific stock. By applying Verizon's Beta from Value Line reports, the Advocate was able to determine a risk-adjusted return on equity. We agree with the Advocate's analysis because it specifically estimates a risk-adjusted return on equity based upon an unbiased forward-looking technique. While the results of the Advocate's analysis is only marginally different from AT&T's (10% vs. 10.42%), we were somewhat troubled with the concerns raised by Verizon NJ over the declining growth assumption used by AT&T.

As for debt, we also **ADOPT** the Advocate's proposal regarding the cost of debt. In its analysis the Advocate relied on A-rated utility debt that consisted of long-term and short-term debt. Verizon NJ, on the other hand, relied on A-rated industrial bonds and assailed the Advocate for including short-term debt. Notably, their results differ by only 7 basis points. Short-term debt is reasonably included in a forward-looking analysis. Short-term debt, like long-term debt, is subject to market perceptions based upon the anticipation of future events. Therefore, it is properly a part of a forward-looking cost study because the actual rate is a reflection of the market's perceived direction over the life of the debt. Furthermore, we would expect the Company to carry both long-term and short-term debt on a forward-looking basis.

Therefore, for the foregoing reasons, the Board **HEREBY ADOPTS** the Advocate's proposed 8.8% as the appropriate forward-looking estimate of cost of capital.

2. Depreciation Lives

Verizon NJ Position

The depreciation lives proposed by Verizon NJ are the lives it used for financial reporting purposes and based on 1999 Generally Accepted Accounting Principles ("GAAP"). The Company maintained that they are subject to both internal and external review (i.e., Verizon NJ's engineers, capital recovery experts, and outside auditors) and "are forward-looking and are informed by developments in technology, equipment durability, competition, and demand." (VNJb at 52; VNJrb at 57). In support of its position, Verizon NJ stated that "[t]he ONJ [Opportunity New Jersey] lives adopted by the Board in the prior UNE proceeding were essentially identical to the equipment lives used by Verizon NJ for financial reporting purposes at that time. Thus, in its revised cost study presented in this matter, Verizon NJ used depreciation lives (economic lives) based on 1999 Generally Accepted Accounting Principles ("GAAP"), again consistent with the equipment lives used by Verizon NJ for financial reporting ("ONJ") purposes." (VNJb at 50). According to the Company, use of these lives results in lower costs than did the lives proposed by Verizon NJ in the prior UNE case. (Ibid.).

The following are the 1999 GAAP lives used by Verizon NJ in its study:

Investment Category	GAAP Life (in yrs.)
Buildings	30.0
Computers	5.0
Digital Switching	10.0
Operator Systems - Digital	10.0
Digital Circuit	9.0
Circuit SONET	8.0
Poles	30.0
Aerial Cable - Metallic	16.0
Aerial Cable - Non Metallic	20.0
Underground Cable - Metallic	16.0
Underground Cable - Non Metallic	20.0
Buried Cable - Metallic	16.0
Buried Cable - Non Metallic	20.0
Intrabuilding - Metallic	16.0
Intrabuilding - Non Metallic	20.0
Conduit Systems	50.0